What is claimed is:

1. A process for preparing an established avian embryonic germ (EG) cell line comprising the steps of:

(a) culturing primordial germ cells (PGCs) isolated from an avian embryonic gonad in a medium supplemented with a cell growth factor and a differentiation inhibitory factor to obtain EG cell colonies;

(b) culturing the EG cells in the same medium as in step (a) by employing a feeder layer until the EG cells are colonized; and

(c) recovering and subculturing the EG cells in the same medium as in step (a) to establish the EG cell line.

2. The process of claim 1, wherein the avian embryonic gonad is at a stage ranging from 14 to 36.

3. The process of claim 2, wherein the avian embryonic gonad is at a stage ranging from 24 to 30.

4. The process of claim 1, wherein the avian species is turkey, chicken, quail, pheasant or duck.

5. The process of claim 1, wherein a layer of germinal ridge stroma cells(GRSCs) is employed as a feeder layer when culturing primordial germ cells in step (a).

6. The process of claim 1, wherein the growth factor is selected from the group consisting of stem cell factor (SCF), basic fibroblast growth factor (bFGF), interleukin-11 (IL-11), insulin-like growth factor-I (IGF-I) and a mixture thereof.

7. The process of claim 1, wherein the medium is supplemented with a growth factor selected from the group consisting of 0.05 to 500 ng/ml of SCF, 0.1 to 1000 ng/ml of bFGF, 0.0004 to 4 ng/ml of IL-11, 0.1 to 1000 ng/ml of IGF-I

and a mixture thereof.

8. The process of claim 1, wherein the differentiation inhibitory factor is leukemia inhibitory factor (LIF).

9. The process of claim 8, wherein the amount of LIF is 0.1 to 1000 units/ml.

10. The process of claim 1, wherein the medium further comprises mammalian or avian serum.

11. The process of claim 1, wherein the medium further comprises a supplementary ingredient selected from the group consisting of sodium pyruvate, glutamine, ß-mercaptoethanol and a mixture thereof.

12. The process of claim 1, wherein the feeder layer is mitotically active.

13. The process of claim 1 or 12, wherein the feeder layer is fibroblast or an equivalent thereof.

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14. The process of claim 13, wherein the fibroblast is avian fibroblast or avian embryonic fibroblast.

15. The process of claim 14, wherein the avian species is chicken.

16. An avian embryonic germ (EG) cell line prepared in accordance with the process of claim 1.

17. The avian EG cell line of claim 16, which can be maintained by repeated subculture.

18. The avian EG cell line of claim 16, which expresses SSEA-1 antigen, forms an embryoid body, and

differentiates and contributes to various tissues.

19. The avian EG cell line of claim 16, which is a chicken embryonic germ cell line having characteristics substantially identical to that deposited under the accession number of KCLRF-BP-00026.

20. A process for preparing a somatic or germline chimera comprising injecting the avian EG cell of claim 16 into an egg.

21. The process of claim 20, wherein the EG cell is injected into a germinal cavity or blood vessel of the egg.

22. The process of claim 21, wherein the EG cell is injected into the germinal cavity of the egg at a stage X.

23. The process of claim 21, wherein the EG cell is injected into the blood vessel of the egg at a stage ranging from 13 to 17.

24. A process for transfecting a foreign gene into EG cells characterized by using electroporation or liposome.

25. A process for selecting stably transfected EG cells comprising passaging EG cells transfected by a foreign gene in a medium containing an antibiotic.

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